



$$I(J^P) = 0(\frac{1}{2}^+) \text{ Status: } ***$$

The quantum numbers have not been measured, but are simply assigned in accord with the quark model, in which the Ω_c^0 is the *ssc* ground state.

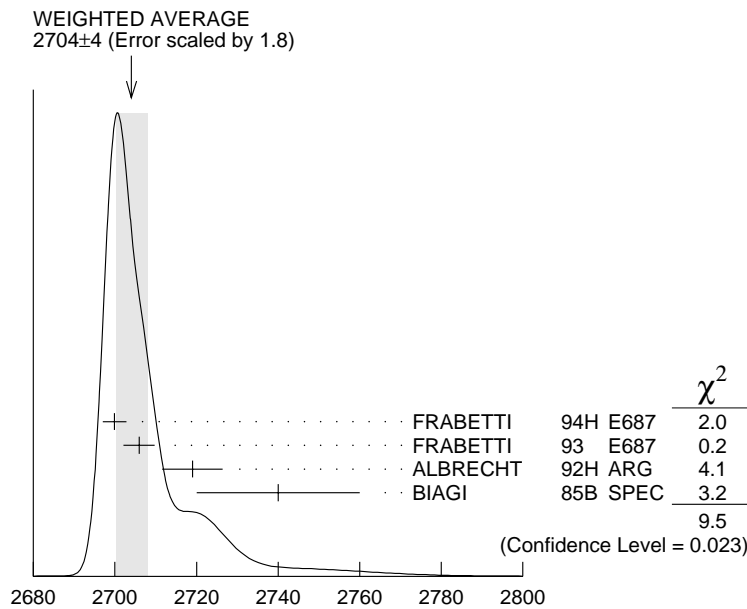
Ω_c^0 MASS

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
2704 ± 4 OUR AVERAGE		Error includes scale factor of 1.8. See the ideogram below.		
2699.9 ± 1.5 ± 2.5	42	¹ FRABETTI	94H E687	γ Be, $\bar{E}_\gamma = 221$ GeV
2705.9 ± 3.3 ± 2.0	10	² FRABETTI	93 E687	γ Be, $\bar{E}_\gamma = 221$ GeV
2719.0 ± 7.0 ± 2.5	11	³ ALBRECHT	92H ARG	$e^+ e^- \approx 10.6$ GeV
2740 ± 20	3	BIAGI	85B SPEC	Σ^- Be 135 GeV/c

¹ FRABETTI 94H claims a signal of $42.5 \pm 8.8 \Sigma^+ K^- K^- \pi^+$ events. The background is about 24 events.

² FRABETTI 93 claims a signal of $10.3 \pm 3.9 \Omega^- \pi^+$ events above a background of 5.8 events.

³ ALBRECHT 92H claims a signal of $11.5 \pm 4.3 \Xi^- K^- \pi^+ \pi^+$ events. The background is about 5 events.



Ω_c^0 mass (MeV)

Ω_c^0 MEAN LIFE

<u>VALUE</u> (10^{-12} s)	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
0.064 ± 0.020 OUR AVERAGE				
$0.055^{+0.013+0.018}_{-0.011-0.023}$	86	ADAMOVICH	95B WA89	$\Omega^- \pi^- \pi^+ \pi^+$, $\Xi^- K^- \pi^+ \pi^+$
$0.086^{+0.027}_{-0.020} \pm 0.028$	25	FRABETTI	95D E687	$\Sigma^+ K^- K^- \pi^+$

Ω_c^0 DECAY MODES

Mode	Fraction (Γ_i/Γ)
$\Gamma_1 \quad \Sigma^+ K^- K^- \pi^+$	seen
$\Gamma_2 \quad \Xi^- K^- \pi^+ \pi^+$	seen
$\Gamma_3 \quad \Omega^- \pi^+$	seen
$\Gamma_4 \quad \Omega^- \pi^- \pi^+ \pi^+$	seen

Ω_c^0 BRANCHING RATIOS

$\Gamma(\Sigma^+ K^- K^- \pi^+)/\Gamma_{\text{total}}$	Γ_1/Γ			
<u>VALUE</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
seen	42	FRABETTI	94H E687	γ Be, $\bar{E}_\gamma = 221$ GeV

$\Gamma(\Xi^- K^- \pi^+ \pi^+)/\Gamma_{\text{total}}$	Γ_2/Γ			
<u>VALUE</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
seen	11	ALBRECHT	92H ARG	$e^+ e^- \approx 10.6$ GeV
seen	3	BIAGI	85B SPEC	Σ^- Be 135 GeV/c

$\Gamma(\Omega^- \pi^+)/\Gamma_{\text{total}}$	Γ_3/Γ			
<u>VALUE</u>	<u>EVTS</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
seen	10	FRABETTI	93 E687	γ Be, $\bar{E}_\gamma = 221$ GeV

$\Gamma(\Xi^- K^- \pi^+ \pi^+)/\Gamma(\Omega^- \pi^+)$	Γ_2/Γ_3			
<u>VALUE</u>	<u>CL%</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<2.8	90	FRABETTI	93 E687	γ Be, $\bar{E}_\gamma = 221$ GeV

$\Gamma(\Omega^- \pi^- \pi^+ \pi^+)/\Gamma(\Omega^- \pi^+)$	Γ_4/Γ_3			
<u>VALUE</u>	<u>CL%</u>	<u>DOCUMENT ID</u>	<u>TECN</u>	<u>COMMENT</u>
seen		ADAMOVICH	95B WA89	Σ^- 340 GeV
• • • We do not use the following data for averages, fits, limits, etc. • • •				
<1.6	90	FRABETTI	93 E687	γ Be, $\bar{E}_\gamma = 221$ GeV

Ω_c^0 REFERENCES

ADAMOVICH	95B	PL B358 151	+Albertson, Alexandrov+	(CERN WA89 Collab.)
FRABETTI	95D	PL B357 678	+Cheung, Cumalat+	(FNAL E687 Collab.)
FRABETTI	94H	PL B338 106	+Cheung, Cumalat+	(FNAL E687 Collab.)
FRABETTI	93	PL B300 190	+Cheung, Cumalat, Dallapiccola+	(FNAL E687 Collab.)
ALBRECHT	92H	PL B288 367	+Cronstroem, Ehrlichmann, Hamacher+	(ARGUS Collab.)
BIAGI	85B	ZPHY C28 175	+Bourquin, Britten+	(CERN WA62 Collab.)
